Introduction There is little evidence that gastroscopy affects patient outcomes, but it is uncomfortable and incurs the risk of intubation and sedation. Capsule endoscopy is a non-invasive tool used primarily to image the small and large bowel. Although a large volume organ, examination of the stomach might be enabled by magnetic control allowing manoeuvrability and positional change.

Methods A standard porcine stomach model, commonly used for endoscopy training purposes was used in a feasibility study of magnetically steerable capsule endoscopy. Different coloured/shaped beads were sewn into each major location of the stomach (cardia, fundus, greater and lesser curve, anterior and posterior wall, antrum and D1). The stomach was distended with 1000mls of water. Endoscopy was performed according to a set protocol using a handheld magnet, Mirocam Navi (Intromedic Ltd), positional changes (supine, 30° left lateral) and a “real time” viewer. The order and time each tag was identified was recorded along the total procedure time.

Results All stomach tags were identified in 87.2% (41/47) of examinations. Missed tags (marked in figure as red dots, representing an incomplete examination) included antrum (3/6), cardia (2/6) and posterior wall (1/6): none were missed in the latter 25 procedures. Mean examination times for the first 23, second 23 and all procedures were 10.28, 6.26 (p < 0.001) and 8.27 (3.25–16.32) minutes and all were completed by 4 mins after 39 procedures. The order in which tags were identified in the mid-body of the stomach (greater, anterior and posterior) was variable and interchangeable. If this area was considered as one site, the order of tag identification would be: cardia (1), fundus (2), mid body (3), lesser curve (4), antrum (5) and D1 (6) in 76.6% of examinations. No difficulties were observed with the current procedure protocol and therefore no modifications recommended.

Conclusion Examination of the upper gastrointestinal tract is feasible using a magnet and positional change as demonstrated in this porcine model. A learning curve was evident and this model might be used for training in the future. Further investigation using porcine models and in humans is necessary to fully realise the scope of this exciting novel technology.

Disclosure of Interest None Declared.

REFERENCE

PWE-063 Evaluation Of a Previously Described Scoring System for Predicting Complications Post ERCP

M C Donnelly, V A Watt and J S Leeds

Gut 2013 62: A156
doi: 10.1136/gutjnl-2013-304907.352

Updated information and services can be found at:
http://gut.bmj.com/content/62/Suppl_1/A156.2

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

- Pancreatitis (531)
- Pancreas and biliary tract (1949)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/